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# MILATARI NEWSLETTER

MILWAUKEE AREA ATARI USERS GROUP

## OFFICERS

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### PRESIDENT:

Gary Nolan  
11230 W. Bobolink  
Milwaukee Wi 53225  
(414)353-9716

### VICE-PRESIDENT:

Nick Liberski  
1350 S Elm Grove Road  
Brookfield Wi 53005  
(414)786-8434

### SECRETARY/TREASURER:

Larry Leskovsek  
1958 Michigan Ave  
Waukesha Wi 53186  
(414)547-0249

### LIBRARIAN:

Wayne Peters  
1335 S Sunny Slope Rd  
Brookfield Wi 53005  
(414)786-3771

### EDUCATION:

Linda Scott  
9910 West Metcalf Place  
Milwaukee Wi 53222  
(414)466-2314

### NEWSLETTER:

David Frazer  
2305 Barberry Court  
Waukesha, Wi 53186  
(414)542-7242

### CORRESPONDENCE SHOULD BE FORWARDED TO:

Milwaukee Area ATARI Users Group  
c/o David Frazer, Newsletter Editor  
Waukesa State Bank  
P.O. Box 648  
Waukesha, Wi 53187-0648

## MEMBERSHIP INFORMATION

Membership is open to individual who have an interest in using and programming ATARI computers. Membership includes the subscription to this newsletter and free access to the users program library and is \$12.00 per year. Single newsletters are \$1.00. A guest may attend one meeting at no charge. The users meetings are held once monthly at 4:00PM on the third Saturday of each month at:

WAUKESHA STATE BANK COMMUNITY ROOM  
110 MADISON STREET  
WAUKESHA, WISCONSIN

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# MILATARI NEWSLETTER

## FEBRUARY MEETING NOTES

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The scheduled February meeting was well attended with 46 members and guests present.

President Gary Nolan began the meeting with his presidents report.

The next item was the treasurers report. Treasurer Larry Leskovsek gave his report. He reminded everyone that dues are payable for the current year.

Vice-president Nick Liberski explained the policy for presenting demonstrations. If you wish to give a demonstration, please contact Nick for scheduling. Nick also lined up equipment for future meetings.

Wayne Peters explained the format of our users group library. He asked for volunteers to key public domain software so it may be included in our library. If you are able to help, please call Wayne. Your own programming efforts are more than welcome.

Linda Scott, our education chairman, is looking for help in setting up training classes. She hopes to be able to provide education for all levels of interest. If you have a talent, let Linda know you will share it with the club.

There were some demonstrations.

First up was our education chairman, Linda Scott with part 1 of a tutorial on *DISPLAY LIST*. Linda has written a program to show the ATARI's capabilities. Part 2 will come next month followed by a writeup of her presentation and program in this newsletter.

Tom Quin was next up with a very thorough demonstration of ATARI's Word Processor.

Nick Liberski was next with his latest hardware addition, the VOTRAX Type-N-Talk system. (As I always say, the only difference between a man and a boy is the price of the toy.) All kidding aside, it was an extremely interesting device.

To close out the demo session, Mac McHenry showed off two new arrivals to the gameware field. *MOUSEATTACK* by On-line Systems is an interesting variation on their game *JAW BREAKERS* and it looks like another winner. Gebelli Software is a new entrant into the ATARI software field. Mac demonstrated their first entry, *MATCH RACER*. It also looks like a certain winner.

Thank a lot to Linda, Tom, Nick and Mac for your fine demonstrations.

## MARCH MEETING AGENDA

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The tentative agenda for our March 20th meeting is:

3:00PM Officers meeting

3:30PM Libraries open  
Open socializing

4:00PM Call to Order  
Business meeting  
Old Business;  
Presidents report  
Treasures report  
Vice-presidents report  
Education report  
Librarians report  
New Business;

### Demonstrations

Gary Nolan brings two hardware demonstrations to the program this month. First, he will demonstrate his new NEC 8023 printer. Next he will show the procedures to install a PERCOM data separator board in the ATARI 810 disk drive. This board will solve many of the problems which have been plaguing many of the older drives.

### Roundtable discussions

This time is set aside to share your ideas and search out your needs.

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## NEWSLETTERS

Newsletters which are received from other groups will be cataloged in our club library and are available for any member at our monthly meeting. We are currently receiving newsletters from:

the Atari Computer Association of Orange County, Ca.  
the Madison Wisconsin Atari Users  
the Michigan Atari Computer Enthusiasts  
the West Valley ATARI Users Group  
the Twincity ATARI Interest Group  
the ATARI Computer Club of Toledo

We thank those groups for their participation in newsletter exchange.

1981

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## BYTES AND NIBBLES

The long overdue book *De Re Atari* published by ATARI can now be order from APX.

Steve Hansen from Magic Lantern in Madison has started an ATARI Newsletter on *The SOURCE*. He has made application to has the newsletter listed in the "PUBLIC" area. Until then, you can access the newsletter through Steve's private files by going into command mode and keying in BASIC (11)TCC3@9>READ.

A new ATARI Bulletin Board System is now up and running in Seattle, Washington. The sysstem is composed of:

- ATARI 800 48K
- ATARI 810 Disk
- ATARI 850 Interface Module
- ATARI 825 Printer
- D.C. Hayes Smartmodem
- AMDEK Color I Monitor

The system will be online from 7PM to 9AM Monday thru urday and all day Sunday. (That's Pacific time zone.) The sysop is

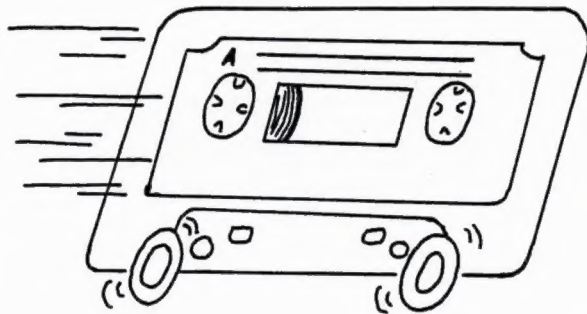
BYTE Shop Computer Store  
2605 2nd Ave.  
Seattle, WA. 98121

Phone (206)622-7274 (modem) and say hello.

ATARI is now shipping the 800's with GTIA chips which add 3 more gaphics modes. (See reprint of article from the Twincity ATARI group in this issue.)

If you purchased your computer since last Christmas, your machine may already have these chips installed. For those of you who don't have these chips installed, your machine can be upgraded at an ATARI service center. ATARI has not yet set a policy in regards to picking up part of the cost for upgrades.

The level "B" OS ROMs are available at ATARI service centers. These chips are being shipped with current , uctions machines and will solve most of the known OS bugs found in the level "A" chips. I will have more information on these chips at the meeting.



## FAST CASSETTE LOAD

by Dave Thompson

(Editor's note: This feature from the December 1981 West Valley ATARI Users Group Newsletter)

There is hope for our users who don't have a disk drive yet and are tired of going to lunch while the Mailing List program or some adventure type games load. Not long ago I was in the same boat, but I said to myself there must be a better way . . . and there is.

I'm sure that any ATARI user worth his RAM has read many articles including ones on turning off the DMA, and said, 'a lot of good that will do me'. Well, it can do you some good if you want to cut your loading time down considerably. All you have to do is load your program and then insert a new cassette (just a precaution). Then in direct mode type POKE 559,0:CSAVE:POKE 559,34 and then press return and your screen will go blank. The POKE 559,0 turns off the DMA and the POKE 599,34 turns the DMA back on again. You will hear the usual BEEP BEEP, and you will press play and record on your recorder and then press RETURN. Then get ready because after the initial time for the cassette to space the leader forward your cassette will really start to move data. Instead of the TV making the usual BEEP pause pause pause BEEP, you will hear BEEP BEEP and so forth till your program is completely saved, then your screen will come back on. There is one small drawback. You cannot see the display on your screen, a small price when you have your tape saved at increased speed. When you load your program you just type in the normal CLOAD, and your tape will load as fast as it was saved.

There are a couple of other uses that turning off the DMA can help you with, such as the search and sort routines of the Mailing List program. I have made additions to the code in one version of the Mailing List and it really makes a difference. You may want to try this on some of your own routines. Experiment. If you have a backup of your program you can't go wrong. Just don't forget to turn on the DMA when you're finished.



## G.T.I.A. Explained

(Editors note: This article is reprinted from the February 1982 newsletter of the Twincity ATARI Interest Group.)

Atari has finally started to ship the elusive GTIA chip in the Atari 800/400's, and the GTIA upgrade will soon be available at service centers for a measly \$23.00. (Mind you, installation will be extra!)

What is the GTIA chip? For the thirtieth time, it is an upgraded graphics chip for the Atari that allows you to use graphics modes 9, 10 and 11 as they were meant. The resolution is still a relative blocky 80x182, but the colors and luminances work.

One thing that makes the GTIA so special, is it gives the Atari a graphics mode comparable to the Apple's 16 color lo-res. Now you are not limited to plotting with 3 colors. Graphics mode 9 gives you the choice of 16 luminances of the background color. This is a special mode in that since it is the only mode that the programmer has this extended selection. To boot, both modes 9 and 10 have over 8 times the resolution of the Apple's lo-res mode. (Graphics 11 with GTIA has twice the color resolution of the Apple III's). This allows for really exotic designs.

Graphics 10 is the other graphics mode. 10 allows 9 colors and/or luminances. Here the programmer has advantages of the color registers. The additional 4 registers are shared with the player-missile graphics, a compromise. You can change the color of a figure drawn in a particular color instantly. In graphics 9 or 10 you would have to resort to primitive Apple logic and redraw the figure you wanted in the different color. A neat trick this mode facilitates is an effect achieved in the arcade game Stargate. Through the name Stargate colors are scrolled, as with the Atari logo, but vertically, not up and down. (It's beautiful, I never play the game, I just stare at the display.)

Before I quit, let's dispell a myth; the GTIA doesn't alter the display list. The display list is the same as with graphics 8's, but the 3 MSB's of a hardware register, PRIOR, is poked with the appropriate number to tell GTIA how to interpret the display data that ANTIC fetches from memory. (Sorry about the buzzwords, they and some specifics about the GTIA are explained in detail in *De Re Atari*.)

If you are still with me, you should be wondering what would happen if PRIOR was poked the value that turned on, let's say, graphics 9. (PRIOR's shadow register is actually poked. POKE 623, (15+(64-gr.9, 128-gr.11, or 192-gr.10)) should tell if there is a GTIA installed, the display should become blurry.) If in graphics 0, the characters would become all blurred. There may be some combination of graphics mode/GTIA mode that looks neat; this is one area that needs exploration.

## more on GTIA

(Editors note: This information comes from Steve Hansen at Magic Lantern)

The three GTIA modes are a little funny. GTIA uses 4 bits for each pixel on the screen. The pixels are very wide and short. The resolution in these modes is 80 across by 192 down. Each line needs 40 bytes of memory. Therefore you will need at least 8k of free RAM to use these modes.

Mode 9 produces 16 luminances of the same hue. The hue comes from the background color register. In basic you set up this mode by calling GRAPHICS 9 and then using SETCOLOR like this:

```
SETCOLOR 4,hue,value,0
```

Then use COLOR to specify which of the 16 luminances you want.

Mode 11 is similar, but it uses 16 colors of the same luminance. You call it with GRAPHICS 11, and then SETCOLOR 4,0,luminance,value. The colors are selected with the COLOR statement.

Mode 10 is different. It allows you to use all of the color registers as playfield registers (including those of the players and missiles). This allows you to have 9 color registers. You can use the standard 0-4, plus the four player/missile registers (locations 704-707). These four last four must be set with poke commands. You can now use these 9 colors by calling them from the COLOR statement.



'He Considers Himself The Virtuoso Programmer.'